



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1FW

Applicant: Kie Y. Ahn et al.

Title: LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRICS

Docket No.: 1303.107US1

Serial No.: 10/602,315

Filed: June 24, 2003

Due Date: June 17, 2004

Examiner: Asok K Sarkar

Group Art Unit: 2829

**MS Amendment**

Commissioner for Patents

P.O. Box 1450

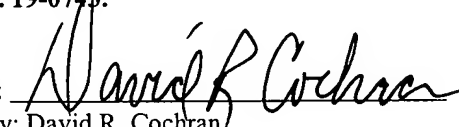
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

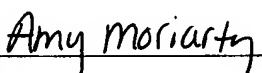
- ☒ A return postcard.
- ☒ A Response to Restriction Requirement (1 Page).
- ☒ A Communication Concerning Related Applications (3 pgs.).

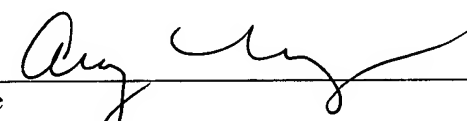
Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
Customer Number 21186

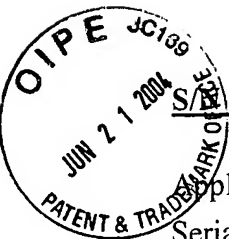
By:   
Atty: David R. Cochran  
Reg. No. 46,632

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Name

  
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
(GENERAL)



S/N 10/602,315

PATENT

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RESPONSE TO RESTRICTION REQUIREMENT

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In response to the Restriction Requirement mailed May 17, 2004, Applicant elects, without traverse, Group I which includes claims 1-45. Applicant respectfully withdraws remaining claims 46-72 (Group II) without prejudice, and reserves the right to reintroduce them for reconsideration in this application upon the allowance of a linking claim or to reintroduce them in a divisional application at a later date.

The Examiner is invited to contact Applicant's Representatives at the below-listed telephone number if there are any questions regarding this Response or if prosecution of this application may be assisted thereby.

Respectfully submitted,

KIE Y. AHN ET AL.

By their Representatives,

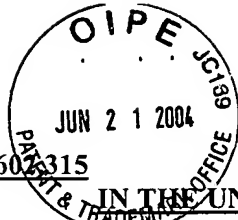
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 371-2157

Date 17 June 2004 By David R Cochran  
David R Cochran  
Reg. No. 46,632

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Name Amy Moriarty

Signature Amy Moriarty



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Examiner: Asok K. Sarkar

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Title: LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRICS

COMMUNICATION CONCERNING RELATED APPLICATION(S)

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/944981	August 30, 2001	1303.021US1	CRYSTALLINE OR AMOPHOUS MEDIUM-K GATE OXIDES, Y203 AND Gd203
09/945535	August 30, 2001	1303.026US1	HIGHLY RELIABLE AMORPHOUS HIGH-K GATE OXIDE ZrO2
10/028643	December 20, 2001	1303.030US1	LOW-TEMPERATURE GROWN HIGH QUALITY ULTRA-THIN CoTiO3 GATE DIELECTRICS
10/052983	January 17, 2002	1303.031US1	HIGHLY RELIABLE AMORPHOUS HIGH-k GATE DIELECTRIC ZrOxNy
10/027315 6740581	December 20, 2001	1303.033US1	LOW-TEMPERATURE GROWN HIGH-QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/099194	March 13, 2002	1303.044US1	EVAPORATION OF Y-Si-O FILMS FOR MEDIUM-k DIELETRICS
10/081439	February 20, 2002	1303.046US1	EVAPORATED LaAlO3 FILMS FOR GATE DIELECTRICS
10/137168	May 2, 2002	1303.048US1	METHODS FOR ATOMIC-LAYER DEPOSITION OF ALUMINUM OXIDES IN INTEGRATED CIRCUITS
10/137499	May 2, 2002	1303.050US1	ATOMIC LAYER-DEPOSITED LaAlO3 FILMS FOR GATE DIELETRICS
10/163481	June 5, 2002	1303.056US1	ATOMIC LAYER-DEPOSITED HfAlO3 FILMS FOR GATE DIELECTRICS

COMMUNICATION CONCERNING RELATED APPLICATIONS

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10/163686	June 5, 2002	1303.059US1	Pr2O3-BASED La-oxide GATE DIELECTRICS
10/209581	July 30, 2002	1303.061US1	ATOMIC LAYER DEPOSITED NANOLAMINATES OF HfO2/ZrO2 FILMS AS GATE DIELECTRICS
10/219870	August 15, 2002	1303.069US1	LANTHANIDE DOPED TiOx DIELECTRIC FILMS BY PLASMA OXIDATION
10/219878	August 15, 2002	1303.070US1	LANTHANIDE DOPED TiOx DIELECTRIC FILMS
10/229903	August 28, 2002	1303.078US1	ATOMIC LAYER DEPOSITED HfSiON DIELECTRIC FILMS
10/233309	August 29, 2002	1303.079US1	ATOMIC LAYER DEPOSITED LANTHANIDE DOPED TiOx DIELECTRIC FILMS
10/309583	December 4, 2002	1303.082US1	ATOMIC LAYER DEPOSITED ZR-SN-TI-O FILMS USING TiH4
10/309935	December 4, 2002	1303.083US1	ATOMIC LAYER DEPOSITED Zr-Sn-Ti-O FILMS
10/379470	March 4, 2003	1303.090US1	ATOMIC LAYER DEPOSITED DIELECTRIC LAYERS
10/403734	March 31, 2003	1303.092US1	ATOMIC LAYER DEPOSITED ZrAlxOy DIELECTRIC LAYERS
10/420307	April 22, 2003	1303.097US1	ATOMIC LAYER DEPOSITED ZrTiO4 FILMS
10/602323	June 24, 2003	1303.101US1	LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRIC LAYERS
09/779959	February 9, 2001		
09/838335	April 20, 2001		
09/881408	June 13, 2001		
09/908767	July 18, 2001		

COMMUNICATION CONCERNING RELATED APPLICATIONS

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10/765619	January 27, 2004	1303.033US2	LOW-TEMPERATURE GROWN HIGH- QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/768597	January 30, 2004	1303.033US3	LOW-TEMPERATURE GROWN HIGH- QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/789042	February 27, 2004	1303.050US2	ATOMIC LAYER-DEPOSITED LaAlO <sub>3</sub> FILMS FOR GATE DIELECTRICS
10/789044	February 27, 2004	1303.070US2	LANTHANIDE DOPED TiO <sub>x</sub> DIELECTRIC FILMS

Respectfully submitted,


KIE Y. AHN ET AL.

By Applicants' Representatives,

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Name

Amy Moriarty

Signature

